

CLAIM LISTING:

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1. (Currently amended) An optical wave guide comprising a core, wherein said core comprises a polymer and at least one organic compound introduced therein, characterized in that the organic compound is selected from the group consisting of a condensed aromatic ring system of two or more isocyclic ring systems and a condensed aromatic ring system of heterocyclic aromatic rings, wherein each heteroatom is selected from the group consisting of nitrogen and oxygen and is assigned to precisely one ring if the ring is heterocyclic.
2. (Previously presented) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system comprises three or more rings.
3. (Previously presented) The optical waveguide according to claim 2, characterized by an angular arrangement of the rings in the condensed aromatic ring system.
4. (Previously presented) The optical waveguide according to claim 1, characterized in that at least one heteroatom is nitrogen.

5. (Currently Amended) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system ~~comprises~~ is selected from the group consisting of phenanthrene, fluorene, benzanthrazene [[or]]~~and~~ triphenylene.

6. (currently amended) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system ~~comprises~~ is selected from the group consisting of benzoquinoline, 1,10-phenanthroline, phenanthridine, [[or]] and 1,7-phenantroline.

7. (Currently amended) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system is selected from the group consisting composed of 1,2-benzoxazole [[or]]~~and~~ benzofurane.

8. (Previously presented) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system ~~comprises~~ is selected from the group consisting of anthracene, 2,3-benzanthracene, [[or]] and 11H-benzofluorene.

9. (Cancelled)

10. (Previously presented) The optical waveguide of claim 1, wherein the polymer is polymethylmethacrylate or polyester.

11. (Previously presented) The optical waveguide of claim 5, wherein the polymer is polymethylmethacrylate or polyester.

12. (Previously presented) The optical waveguide of claim 6, wherein the polymer is polymethylmethacrylate or polyester.

13. (Previously presented) The optical waveguide of claim 7, wherein the polymer is polymethylmethacrylate or polyester.

14. (Previously presented) The optical waveguide of claim 8, wherein the polymer is polymethylmethacrylate or polyester.

15. (new) The optical waveguide of Claim 1, wherein the organic compound is a condensed aromatic ring system of two or more isocyclic ring systems.

16. (New) The optical wave guide of Claim 15, wherein the condensed aromatic ring system comprises three or more rings.

17. (New) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system is selected from the group consisting of phenanthrene, fluorene, triphenylene, benzanthracene, 2, 3-benzanthracene, anthracene, and 11H-benzofluorene.

18. (New) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system is selected from the group consisting of benzoquinoline, 1,10-phenanthroline, phenanthridine, 1,7-phenantroline, 1,2-benzoxazole and benzofurane.

19. (New) The optical waveguide according to claim 1, characterized in that the condensed aromatic ring system is selected from the group consisting of benzoquinoline, 1,10-phenanthroline, 1,7-phenantroline, 1,2-benzoxazole and benzofurane.

20. (New) The optical waveguide of Claim 19, wherein the aromatic ring system is selected from the group consisting of benzoquinoline, 1, 10-phenanthroline, 1,7-phenantroline, and 1,2-benzoxazole.